



# UNITED STATES PATENT AND TRADEMARK OFFICE

CL  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/603,354      | 06/25/2003  | Gregory Zaslavsky    | 03-1-501            | 2580             |

7590 05/24/2004

Carlo S. Bessone  
OSRAM SYLVANIA INC.  
100 Endicott Street  
Danvers, MA 01923

EXAMINER

LEURIG, SHARLENE L

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|------------------------------|------------------------|---------------------|--|
|                              | 10/603,354             | ZASLAVSKY ET AL.    |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Sharlene Leurig        | 2879                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 25 June 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-32 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 1-16, 28 and 30-32 is/are allowed.

6)  Claim(s) 17-25 and 29 is/are rejected.

7)  Claim(s) 26 and 27 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 25 June 2003 is/are: a)  accepted or b)  objected to by the Examiner.

- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(2)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 062503.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17, 25 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Schafnitzel et al. (5,757,129).

Regarding claim 17, Schafnitzel discloses a mercury carrier for a fluorescent lamp, where the carrier comprises a body of a metal material (column 2, lines 48-49) not reactive with mercury, a coating (Figure 2, element 8) of a metal which amalgams with mercury (column 5, line 65 to column 6, line 5) over a selected surface area of the body, mercury disposed on the metal coating and retained thereby in an amount up to that permitted by the selected mass of the metal coating (column 6, line 1), where the body is adapted for retention in the lamp after sealing of the lamp at completion of manufacture (column 5, lines 1-4), and for introducing the permitted amount of mercury into the lamp.

The limitation of the body being for placement in a fluorescent lamp during manufacture of the lamp is not afforded patentable weight as it is recited solely in the preamble.

Regarding claim 25, the body is adapted for placement in and retention in an exhaust tubulation (Figure 1, element 3) disposed in the lamp and sealed at completion of the lamp (column 5, lines 1-4).

Regarding claim 29, the body can be made of iron (column 2, line 48).

The limitation of the iron being adapted to reduce a portion of the leachable mercury in the lamp to elemental mercury upon pulverization of the lamp for test purposes is taken to be an inherent feature of the iron body, as there is no limitation in the claim which structurally or chemically differentiates the iron disclosed by Schafnitzel from that claimed by the applicant.

3. Claims 17-20 and are rejected under 35 U.S.C. 102(b) as being anticipated by Yorifuji et al. (4,972,118).

Regarding claim 17, Yorifuji discloses a mercury carrier for a fluorescent lamp, where the carrier (Figure 7, element 31) comprises a body of a metal material (column 5, line 21) not reactive with mercury, a coating (column 5, line 21) of a metal which amalgams with mercury over a selected surface area of the body, mercury disposed on the metal coating and retained thereby in an amount up to that permitted by the selected mass of the metal coating, where the body is adapted for retention in the lamp after sealing of the lamp at completion of manufacture, and for introducing the permitted amount of mercury into the lamp.

The limitation of the body being for placement in a fluorescent lamp during manufacture of the lamp is not afforded patentable weight as it is recited solely in the preamble.

Regarding claim 18, Yorifuji discloses the body to be in a wire segment shape and made of steel (column 5, line 21).

Regarding claim 19, the coating comprises indium (column 5, line 21).

Regarding claim 20, the steel body is coated with indium and therefore the selected surface comprises the whole surface of the body.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 18, 19 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafnitzel et al. (5,757,129) in view of Siiberg (4,090,050).

Schafnitzel discloses a spherical body for retention in a lamp after manufacture, where the sphere has a coating of indium, with mercury disposed on the coated area.

Schafnitzel discloses that the sphere may be formed of a ferromagnetic material so that it can be controlled by a magnet during the manufacture process.

Regarding claim 18, Schafnitzel fails to exemplify the sphere being made of steel.

Siiberg teaches that steel may be ferromagnetic so that it can be manipulated by magnets (column 2, lines 35-36).

Therefore regarding claim 18, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the sphere out of ferromagnetic steel, as Siiberg has taught that ferromagnetic steel may be manipulated by magnetic fields.

Regarding claim 19, Schafnitzel discloses a coating of an alloy of indium or silver (column 5, lines 63-67).

Regarding claims 21 and 24, Figure 2 of Schafnitzel illustrates an embodiment in which less than the whole surface of the body is coated with the coating, and where that selected surface area can be interpreted as being a single patch.

Schafnitzel further discloses that the amalgam coating may have a few percent of mercury (column 6, lines 1-2).

Regarding claims 22 and 23, Schafnitzel fails to exemplify the mass of mercury retained by the metal coating.

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide up to 9 milligrams of mercury, or between 2-5 milligrams of mercury, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Therefore regarding claims 22 and 23, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide between 2-5 milligrams of mercury, which falls within the claimed range of up to 9 milligrams of mercury, in order to achieve the desired lighting effect, as Schafnitzel discloses that lighting properties of the lamp are determined by the mercury contained therein, and as it has been held to be within the skill of one with ordinary skill in the art.

6. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yorifuji et al. (4,972,118).

Yorifuji discloses a body for retention in a fluorescent lamp after completion of manufacture, where the body is a metal material in a wire segment shape and formed of steel having a coating of indium that amalgamates with mercury (column 5, line 21), where the percentage of mercury can be varied (column 2, lines 10-35) and where the amount of mercury affects the luminous flux (column 1, line 65 to column 2, line 2).

Yorifuji fails to exemplify the mass of mercury in the amalgam being up to 9 milligrams, or more specifically, between 2-5 milligrams.

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide up to 9 milligrams of mercury, or between 2-5 milligrams of mercury, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Therefore regarding claims 22 and 23, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide between 2-5 milligrams of mercury, which falls within the claimed range of up to 9 milligrams of mercury, in order to optimize the luminous flux of the lamp, as finding the optimum range has been held to be within the skill of one with ordinary skill in the art.

***Allowable Subject Matter***

7. Claims 1-16, 28 and 30-32 are allowed.
8. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-10 and 14-16, the examiner notes that the prior art of record fails to teach or suggest the combination of limitations set forth in claims 1 and 14, and specifically comprising the limitation of a method for introducing mercury into a lamp during manufacture of the lamp, where a body of a metal material is placed by way of the exhaust tubulation, where the body during manufacture has a coating of metal comprising silver, gold or indium or alloys of silver, gold or indium, and where the body has mercury on the coated area of the body.

Regarding claims 11-13, 28 and 30-32, the examiner notes that the prior art of record fails to teach or suggest the combination of limitations set forth in claims 11, 28 and 30, and specifically comprising the limitation of a method for introducing mercury into a lamp during manufacture of the lamp, where a body of a metal material is placed in the exhaust tubulation, where the body during manufacture has a coating of metal

comprising silver, gold or indium or alloys of silver, gold or indium, and where the body has mercury on the coated area of the body.

9. Claims 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

The examiner notes that the prior art of record fails to teach or suggest the combination of limitations set forth in claim 26, and specifically comprising the limitation of a body disposed in a lamp and retained therein after manufacture, the body being made of a metal that does not react with mercury and having a coating of metal that amalgamates with mercury, and where the body has mercury on the coated area of the body, where the body is a wire segment of a U-shaped configuration.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

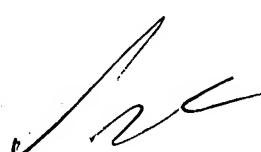
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sll

SL

  
VIP PATEL  
PRIMARY EXAMINER